### **University of New Mexico, Valencia**

Brake Systems/ Steering/ Suspension - 46922 - AUTT 115 - 501

# **Syllabus**

UNM Valencia, Brake Systems – Steering/ Suspension - AUTT 115-501 Fall 2018, Monday and Wednesday 3:30 P:M to 5:10 P:M Instructor J. Anthony Chavez
Office Hours 3:00 to 4 P:M Monday and Wednesdays and by appointment Class held at Valencia High School in the Auto Classroom720 and the Shop 505-565-8755 and cell 505-859-0491 janthonychavez@unm.edu
Jachavez@llschools.net (used mostly)

## **Course Description**

In this course students will learn basic operating principles of a vehicle. Students will learn operating principles of mechanical and hydraulic brakes, mechanical and power steering systems and other components, the students will learn safety procedures and learn how to follow state and federal guide lines, students will learn how to safely lift and work on a vehicle's basic systems. Its a over view of the entire mechanical operating system. As well as brakes and steering suspension class. Upon completion of electrical 1 and 2 Brakes and suspension training will be complete. This will prepare students to take there ASE certification Examination

#### Prerequisite

Safety is the # 1 priority must follow rules that are posted.

#### **GENERAL COURSE OBJECTIVES**

- 1. Be able to diagnose tire wear problems.
- 2. Be able to inspect front ends for wear and related issues.
- 3. Be able to diagnose pull related concerns.
- 4. Be able to diagnose, inspect and replace shock absorbers and struts.
- 5. Be able to adjust and align steering systems.

### **Course Content and Scope**

Students will practice the skills, knowledge and abilities necessary to perform, with supervision, base brake and anti-lock brake (ABS), suspension and steering repairs on import and domestic cars and light trucks. This course prepares students to service these systems with limited supervision, which is the skill level necessary for employment at an apprentice level.

The broader purpose of this course is to provide students with authentic experience in basic industry skills and concepts, to ensure their success in later courses and on-the-job. These skills include tool use, fastener tightening, precision measuring and shop safety. Concepts and abilities that they will put into practice include craftsmanship, professionalism, communication of inspection results and responsible customer service.

- B. Appropriate Readings.
- 1. Readings may be assigned from college level material such as books, reports,

Professional journals, and similar materials associated with the course material.

C. Writing Assignments.

Typical writing assignments may include.

- 1. Completing assigned papers or reports.
- 2. Providing written answers to assigned questions.
- 3. Performing arithmetic calculations as assigned.
- D. Appropriate outside assignments

Students are expected to spend a minimum of 1 hours outside of class in preparation

for each hour of theory in class. Appropriate assignments include:

- 1. Preparing writing assignments.
- 2. Studying as needed to perform successfully in class.

## **Teaching Methods**

May Include:

- 1. Lecture with, or without, various visual aids.
- 2. Group problem solving, discussions, debate, and /or critique.
- 3. Demonstration.
- 4. Computer assisted instruction.
- 5. Hands-on shop assignments.

## **Grading/Evaluation policy**

A student's grade will be based on multiple measures of performance, and will reflect the level of accomplishment of the objectives set forth above as well as the level of understanding of the topics enumerated under "Content and Scope". A finale Grade of

"C" or better will indicate that the student has the ability to successfully apply the principles taught in this course to subsequent courses, to the work-place, or to personal goals as appropriate. The assessment process will also measure independent critical thinking skills and will reflect the student's ability to demonstrate by.

- 1. Performing on written or oral examinations.
- 2. Performing on outside assignments including shop assignments.
- 3. Contributing to class discussion.
- 4. Maintaining attendance per current policy.
- 5. Hands-on diagnosis and repair.
- 6. Completion of assigned ASE/NATEF task lists.

Appropriate text and material:

Modern AutomotiveTechnology

Classroom and Shop Manuals. Safety Glasses(Mandatory), Personal tools(Optional

#### **Respectful Campus Policy**

The Auto Department affirms its commitment to the joint responsibility of instructors and students to foster and maintain a positive learning environment. UNM students and instructors are bound by the terms of the Student Code of Conduct, which is published in the UNM Pathfinder at: <a href="http://pathfinder.unm.edu/policies.htm#studentcode">http://pathfinder.unm.edu/policies.htm#studentcode</a>

#### **Tools/Equipment/Shop**

- 1. All tools are to be checked out.
- 2. All tools will be cleaned when checked back in.
- 3. No tools will be taken home or out of shop.
- 4. It is the responsibility of the student to maintain and keep the shop clean and orderly.

#### Attendance

Because students who miss two weeks- or one-eighth of a sixteen-week semester- of class time generally have missed too much class work to make up, you may be dropped from the course if your absences total three for a class that meets two times a week. However, please realize that though missing two classes may not get you dropped, every absence makes it harder and harder for you to stay up-to-date on assignments and complete work on time. The Auto Department does not differentiate between sick days, doctor appointments, and fun days. **Note:** Arriving late, leaving class early, sleeping in class, or not being prepared results in an absence. If you have an extenuating circumstance, please talk to me!

#### **Drop Policy**

Dropping or being dropped from a course can affect your GPA, enrollment status, and financial aid status/award. Always talk to your instructor before it's too late about the possible consequences of a drop and opportunities for avoiding it.

# **Disability**

If you are a student with a disability that may hinder or impair your ability to complete this course, please inform me as soon as possible so arrangements can be made. The University of New Mexico-Valencia Campus offers students with disabilities academic adjustments or accommodations in their classes to help them succeed. It is your responsibility to register your disability with Student Services located in the Student

Services building at UNM-Valencia Campus. Please call 505-925-8560 for more information.